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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,134	09/21/2001	Stan Tsai	5262/CMP/CMP/RKK	4110
32588	7590	04/29/2004	EXAMINER	
APPLIED MATERIALS, INC.			WONG, EDNA	
2881 SCOTT BLVD. M/S 2061			ART UNIT	
SANTA CLARA, CA 95050			PAPER NUMBER	

1753

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/961,134

Applicant(s)

TSAI ET AL.

Examiner

Edna Wong

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): See pages 2-6.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See pages 2-6.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

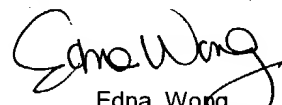
Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 24.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____


Edna Wong
Primary Examiner
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ADVISORY ACTION

This is in response to the Amendment after Final dated April 22, 2004. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Claim Objections

Claims **8 and 24** have been objected to because of minor informalities.

The objection of claims 8 and 24 has been withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 112

I. Claims **1-10 and 25** have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The rejection of claims 1-10 and 25 under 35 U.S.C. 112, first paragraph, has been withdrawn in view of Applicants' amendment.

II. Claims **6-9 and 24** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

The rejection of claims 6-9 and 24 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 102

I. Claims **1-3** have been rejected under 35 U.S.C. 102(e) as being anticipated by **Talieh et al.** (US Patent No. 6,328,872 B1).

The rejection of claims 1-3 under 35 U.S.C. 102(e) as being anticipated by Talieh et al. has been withdrawn in view of Applicants' amendment. Claims 1-3 have been cancelled.

II. Claim **25** is rejected under 35 U.S.C. 102(e) as being anticipated by **Talieh et al.** (US Patent No. 6,328,872 B1).

The rejection of claim 25 under 35 U.S.C. 102(e) as being anticipated by Talieh et al. has been withdrawn in view of Applicants' amendment. Claim 25 has been withdrawn.

Claim Rejections - 35 USC § 103

I. Claims **4-9** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Talieh et al.** (US Patent No. 6,328,872 B1) as applied to claims 1-3 above.

The rejection of claims 4-9 under 35 U.S.C. 103(a) as being unpatentable over

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Talieh et al. as applied to claims 1-3 above has been withdrawn in view of Applicants' amendment. Claims 4-9 have been withdrawn.

II. Claim **10** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Talieh et al.** (US Patent No. 6,328,872 B1).

The rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Talieh et al. has been withdrawn in view of Applicants' amendment. Claim 10 has been withdrawn.

III. Claim **24** has been rejected under 35 U.S.C. 103(a) as being unpatentable over **Ashjaee et al.** (US Patent Application Publication No. 2003/0029731 A1).

The rejection of claim 24 under 35 U.S.C. 103(a) as being unpatentable over Ashjaee et al. is as applied in the Office Action dated February 6, 2004 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that the Examiner errs in interpreting the term "varying" to refer to switching from electroplating to electropolishing. Applicants submit that "varying the magnitude of the second electrical bias" relates to the rate of material removal. In response, Ashjaee teaches the adjustment of the voltage (page 4, ¶ [0046]). It is deemed that adjusting the voltage or bias, such as from a low value to a high value or from a high value to a low value, would have been varying the magnitude of the second electrical bias, and is well within the ordinary skill of the artisan so as to optimize the

workable ranges by routine experimentation.

As to relating to the rate of material removal, while the Applicants have a different reason for, or advantage resulting from doing what the prior art relied upon has suggested, it is noted that it is well settled that this is not demonstrative of nonobviousness. *In re Kronig* 190 USPQ 425, 428 (CCPA 1976); *In re Linter* 173 USPQ 560 (CCPA 1972); the prior art motivation or advantage may be different than that of Applicants while still supporting a conclusion of obviousness. *In re Wiseman* 201 USPQ 658 (CCPA 1979); *Ex parte Obiaya* 227 USPQ 58 (Bd. of App. 1985) and MPEP § 2144.

Applicants state that neither of the provisional applications related to Ashjaee et al. (US Patent Application Publication No. 2003/0029731) support the subject matter in Ashjaee et al. relied upon by the Examiner in the rejection of pending claim 24. In response, it is deemed that the adjustment (variation) of the voltage is commonly done in the electrolysis art. There is no requirement that the motivation to make the assertion be expressly articulated in one or more of the references. The teaching, suggestion or inference can be found not only in the references but also from knowledge generally available to one of ordinary skill in the art. References are evaluated by what they collectively suggest to one versed in the art, rather than by their specific disclosures. *In re Simon* 174 USPQ 114 (CCPA 1972); *In re Richman* 165 USPQ 509, 514 (CCPA 1970).

Applicants state that the present application shows possession by Applicant of the same subject matter prior to October 11 , 2000, as established by the accompanying 37 C.F.R. 1.131 Declaration. Therefore Ashjaee et al. (US Patent Application Publication No. 2003/0029731) cannot be properly used as a reference to teach, show or suggest claimed aspects of the invention. In response, the Declaration appears to teach ECP (electrochemical plating) and ECMP (electrochemical mechanical polishing). These are taught by Ashjaee (page 1, ¶ [0011]; and page 4, ¶ [0046]).

The difference between Ashjaee and the present claim is varying the magnitude of the second electrical bias relative to the first electrical bias as the metal layer is formed. Applicants' Declaration is silent to this (i.e., the first and second electrical biases and the variation of the magnitude of the second electrical bias)

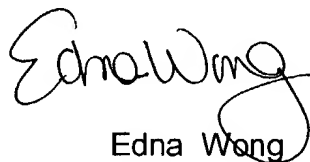
Applicants' remarks have been fully considered but they are not deemed to be persuasive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Edna Wong". The signature is fluid and cursive, with the first name "Edna" and last name "Wong" clearly distinguishable.

Edna Wong
Primary Examiner
Art Unit 1753

EW
April 28, 2004